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**ABSTRACT**

The ability of individuals to concentrate on a learning activity is strongly influenced by factors in their environment. Therefore, the author of this paper has offered a number of suggestions about how the classroom environment can be made more conducive to learning. (RH)

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LEARNING ENVIRONMENT

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## HUMANIZATION OF THE LEARNING ENVIRONMENT

By Claude G. Horton

### RATIONALE

In the schooling of our children it is foolish to act as if we can deal with their intellects without dealing with dozens of other human components.

What dominates your attention at five minutes to noon on a day when you happened to miss breakfast? Or at three o'clock, after sitting on a hard chair since returning from lunch? How appealing is the geography of the Mississippi delta in Mr. Orderly's quiet, traditional classroom when the boy across the aisle lets a pet lizard crawl around on his desk top? How long can you attend carefully to the arithmetic lesson shouted above the din in Miss Mod's easy-going classroom? The ability of an individual to concentrate on a learning activity is strongly influenced by factors in his internal and external environment.

There are ways to provide an environment fit for human occupation and learning. If we accept the premise that learning is done by the student and not to him, then we may find a way to provide an environment in which he is at least not very much hindered from learning and at best will be motivated to become involved in learning.

Some of the specific environmental factors to be considered in school planning are discussed in the following paragraphs.

#### ESTHETICS

Repetition of one style or color, no matter how beautiful or inexpensive, tends to be boring unless relieved by contrasts and variations. Do not avoid the colors of a sunset, nor of a rainbow. Low ceilings are oppressive. Harsh lines are annoying. Textures increase tolerance.

All work areas should provide space for the display of both two-dimensional and three-dimensional objects done by or for the students. Artistically pleasing displays are appropriate for every curricular area.

DIVERSIFICATION AND EXPANSION OF WORK AREAS

Baffles, screens, curtains and movable furniture provide many opportunities for multiple usage of facilities.

A table or counter top becomes a carpenter's bench or a potter's work surface with the addition of a removable plywood sheet.

Replacing a window in an outside wall with a door provides access to a small work patio where messy and noisy activities do not disturb so much, and where a bird feeder and planter box may allow direct experience to supplement classroom science studies.

Most students, being humans, will be found to prefer pursuing their investigations in a small niche or corner rather than in the middle of a large, flat, open space. Encouragement of individual and small-group study should carry with it provisions for this sort of privacy.

Cats, dogs and children seem to prefer variety in the immediate topography, rather than flat sameness. Low platforms in a room, split-level buildings, balcony resource areas (with adequate skylight ventilation), circular stairways and other monotony breakers will add minutes and hours to the tolerance of our students for our well-meant courses, units and programs. Many of these items do not cost money, unless they are overlooked in the first round of building or restoration and have to be added later.

#### FURNITURE

Comfort, eye appeal and safety must be considered in the selection of tables, desks, shelves, etc.

Hard surfaces are generally less comfortable and not as safe as softer surfaces. They also add to the noise level of an area. Soft, textured surfaces absorb and diffuse sound. Metal lockers are close to the ultimate in nuisance value per dollar cost.

Open, pigeon-hole-type storage areas for elementary students, attractively painted, serve as sound baffles and can be used in lieu of storing personal effects in desks. This alternative eliminates the need for having one particular desk assigned to each student and reduces complaints when children move among several locations during the day.

#### HEAT, LIGHT & VENTILATION

Reliance upon gadgetry instead of gravity to provide ventilation may not be wise. What happens when the power goes off? Who ever owned a silent blower?

Large, louvered vents at the highest points in a room may save a lot of expensive electrical power. High ceilings not only help relieve noise pollution but also aid in gravity-reinforced air circulation.

External, louvered baffles over window areas may provide an additional saving by diverting hot weather sunlight before it enters the building. Such baffles may be arranged to allow a view of distant trees and mountains while screening out the sight of exciting school-yard scuffles and providing the additional benefit of diffused natural lighting with minimal glare.

Needless to mention, louvers provide protection from hard, flying objects.

While it cannot be proven exhaustively that natural light is more suitable to humans than the artificial variety, a sensible approach is to place the burden of proof on the newcomer, to which we humans were not called upon to adapt until about the last two out of our two thousand or so generations on this planet. It is certain that some people are bothered by fluorescent lighting. In addition to the comment that such lighting seems "cold" or "depressing", some persons can hear a high-pitched whine from this source; others claim that it flickers in an annoying way.

One of the problems with the ordinary incandescent bulb is that it produces considerable heat. This could be an asset on cold, dark winter days, when natural light is minimal.

These considerations may lead us to include all the usable natural light we can obtain, supplemented by a mixture of fluorescent and incandescent artificial light, with louvers and skylights for valuable aids in controlling heat, light and ventilation.

#### SURFACE COVERINGS & BAFFLES

Carefully selected materials may serve to absorb and diffuse noise, prevent occurrence of noise, insulate, ventilate and please the eye of the beholder.

Not all applications will do all these things at once, but some will. For example, quilted cotton print seat covers for your wooden benches or chairs.

Heat conduction is an important factor. Metal absorbs heat and, in cool weather, becomes a heat sink, with a chilling effect on warm-blooded animals, both on direct contact and even at some distance.

Plastic and rubber surfaces, while relatively elastic and not good conductors of heat, are nevertheless non-porous and tend to produce sweating, as well as often not smelling good. They may even give off irritating, allergy-causing fumes and they are hard to repair.

Wood, on the other hand, has few drawbacks. It is usually very easy to repair, is pleasing to the eye, is much more resilient than metal, does not become a heat sink, does not cause sweating and can be covered with a variety of materials which further improve its sound absorption and other desirable features.

Storage cabinets can be covered with sound absorbent materials such as acoustical tile or fiberboard, to which art work may be pinned.

Rugs made of easily cleanable, non-static-producing materials are rapidly becoming a standard floor covering. These same materials may be applied to lower parts of walls, to cubical hassocks and benches, to small platforms and to bleacher-type seats.

Shelves and cabinets on large casters provide separation, privacy, convenience and serve to interrupt unwanted sights and sounds.

A less obvious means of regulation is found in the use of hanging baffles, which can be mounted in the vertical or horizontal planes, at varying distances from the ceiling. Such baffles may trap sound from an isolated area, absorb and diffuse sound from the whole general area, or divert noise and light entering through an open transom or a high window.

Acoustical tile or fiberboard is often used on flat wall surfaces.

Additionally, movable fiberboard panels may be installed to cover sound-reflecting chalkboards when they are not in use.

Large, porous curtains may be mounted on ceiling tracks and used to provide separation, partial room darkening and sound absorption. They are useful for both rehearsals & showings of theatrical productions.

#### IMPLEMENTATION

When we know what we want and are willing to expend some effort to find a way, there is usually a solution within our grasp in spite of tight budgets, limited space or other apparent obstacles.

When parents learn what could be provided for their children, they will often make a special effort to bring these benefits into reality now, rather than allowing their children to pass through without such advantages. Wonderful prospects for elementary students five years hence do not thrill parents of today's fifth graders. They want action now.

Getting results almost immediately may not be possible through usual processes. Parents and teachers who want to beat the routine time schedule may have to find extra-ordinary ways to help bring about desired changes.

Each individual situation demands its own assortment of creative efforts to achieve the goal. All should have one element in common however - a spirit of positive contribution to the best efforts of the school to provide for the educational needs of children. Instead of complaints, constructive actions are needed. What kinds of actions? The possibilities are endless. Here are a few examples:

Acoustical wall covering is needed: parents produce qualified men who will donate their time on Saturdays to mount the tile. They locate a building supply store which will supply materials for this community project at cost. Materials are bought out of appropriate school district funds; parents and teachers do the rest.

Room divider curtain is needed: P.T.A. buys burlap on sale, has it treated for fire resistance, sews the pieces together in a special work session in the cafeteria with portable machines brought from home, and a group of fathers help the principal install a school-purchased carrier track on the ceiling.

Other challenges are met and dealt with in a similar way. God and the school board will often help those who are willing to help themselves. Go to it.